Understand the Geography of Financial Precarity in England and Wales

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Abstract

Financial precarity is a growing and pressing issue in many countries, which refers to a precarious existence which lacks job security, predictability, and psychological or material welfare. Its negative effects can be observed in cognitive functioning, emotional stability and social inclusion. Financial precarity has been proved to be impacted by multifaceted factors ranging from poor quality, unpredictable work, unmanaged debt, insecure asset wealth and insufficient money and resource. However, the geographical variation of financial precarity and the embedded social-spatial inequalities remain understudied. This paper addresses this research gap by introducing a new geodemographic classification of financial precarity, which is developed from a series of small area measurements covering employment, income, asset, liability and lifestyle characteristics of neighbourhoods. The research is conducted within the spatial extent of England and Wales.

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1 Introduction

Precarity has been broadly used to define the state of lacking security and predictability of material and psycho-social deprivation [1]. Particularly, financial precarity refers to the precarious state of being financially insecure or at risk of economic hardship. In social science research, the concept of precarity has been closely associated with employment and work[2][7]. However, since Ettlinger first argued for an "unbounded approach" to study precarity[3], there is a growth in geographical understanding of the multi-dimensional nature of contemporary precarity[11]. A main contribution from geographers relates to the spatialisation of precarity, and its situation as a feature of broader life rather than something specific to related to work or income[10]. Such a dualistic characterisation of approach leads to the concept of precarity encompassing both "labour" and "life", and also lays the foundation for our research to understand the geography of financial precarity. Previous research recognises the detrimental consequences of financial precarity[6] and investigates the structural and institutional drivers of these patterns[5]. There is however dearth of understanding about the geographic variation and characteristics of financial precarity, especially at the small spatial scale.

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This research aims to develop new understand about the multidimensional nature and geography of financial precarity through a geodemographic framework encompassing measures of employment status, income and benefits, assets, liabilities and lifestyle factors. The output is a Financial Precarity Classification which maps the residential differentiation of financial precarity across different neighbourhoods in England and Wales at the small area level.

2 Material and methodology

This research captures a variety of structural factors collected at the Lower Super Output Area (LSOA) level to depict the multidimensional facets of financial precarity. These small area measures are used as inputs to a geodemographic classification which groups the 35,672 LSOA zones of England and Wales into different clusters by the common shared salient characteristics. A framework for the typology was developed around five domains related to the main drivers and influences of financial precarity; including "Employment", "Income", "Assets", "Liabilities" and "Lifestyle". There are further disaggregated into a series of dimensions, which are used as the basis for identifying measures.

Data used to create measures were derived from a variety of sources including the 2021 Census (covering all the employment measures and other dimensions ranging from housing tenure, second address, overcrowding, cars, age band, household composition and health). Other secondary datasets such as Department for Work and Pensions (DWP) Statistics, Energy efficiency statistics, UK Finance Statistics and County Court Judgement (CCJ) Records are used to describe the aggregated level of social benefits, energy consumption, loan and lending, and debt in the LSOAs. In addition, two customer behaviour surveys - GambleAware Treatment and Support Survey and the FCA Financial Behaviour Survey – were included as alternative to derive measures through small area estimation microsimulation. After the correlation analysis between each of the candidate variables, These there are 52 measures formed the input variables to the classification (as listed in Figure 2).

The direct and small area estimated measures offer insights into a spectrum of spatial inequality of financial precarity from multifaceted perspectives. But such multidimensional results are hard to interpret or draw insightful conclusions in isolation. Geodemographics classification is a computational technique used to cluster small areas according to the similarity in area level characteristics[4]. It is a well established and effective method to highlight salient multidimensional characteristics from a body of small area measures. Geodemographic classification has adopted in numerous contexts to create neighbourhood classifications, for example, related to education or digital inclusion[12][8]; and is widely used in consumer segmentation for marketing and other business practices[9].

3 A Classification of the Financial Precarity

A K-means clustering algorithm was implemented to develop the multivariate classification after the standardisation and normalisation of the input variables. The standardisation includes centring and scaling, which transformed the variables to mean zero and standard deviation 1; the normalisation is was conducted through Box Cox transformation which transforms the variables to a normal distribution. Before implementing K-means clustering, a Clustergram was used to decide on the number of clusters of the Supergroup, and after partitioning, the process was repeated for each of the Supergroups to determine the number of Subgroups. As a result, the geodemographic classification clustered the 35,672 LSOA across England and Wales into 6 Supergroups and 14 subgroups. Here we present the characteristics of the 6 Supergroups. Figure 1 shows these on a map for England and Wales, with Greater London as inset.

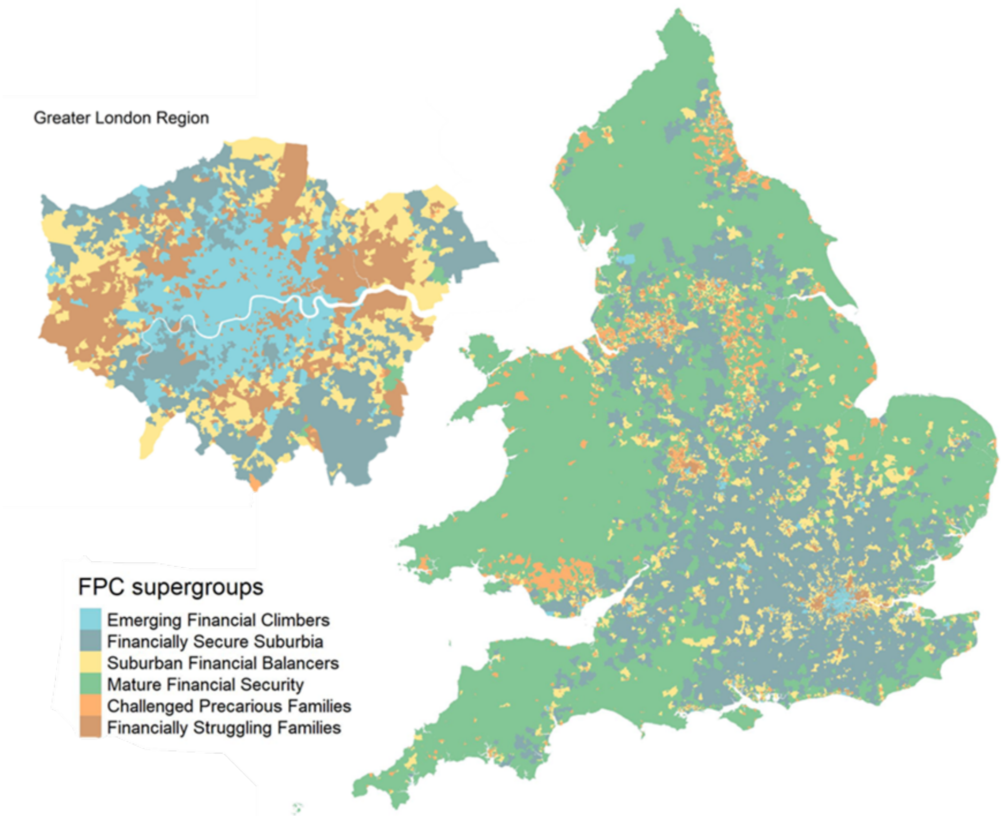

Figure 1 A map of the Financial Precarity Classification (FPC) for England and Wales.

To better understand the salient characteristics of the classification outcomes, the input variables of each Supergroup were compared with the mean scores for their cluster. These scores are visualized in Figure 2. A significantly higher or lower index score indicates the measure is a key differentiator of the Supergroup. By doing so, each of the 6 Supergroups can be profiled by the combination of their salient measures.

The interpretation of the geodemographic classification is normally based on the index score list as in Figure 2 and presented with labels and descriptions. The "pen portraits" of the Financial Precarity Classification Supergroups are as follows:

1: Emerging Financial Climbers (8.5%)

Predominantly located in London and other provincial cities and comprises mainly of young professionals and full-time students. This well-educated young Supergroup exhibit the lowest rates of asset ownership such as houses and cars within the UK, and a lack of savings and investment. They typically reside in expensive neighbourhoods and pay high private rentals for over-occupied houses. The younger age of this group is also associated with better health conditions.

2: Financially Secure Suburbia (16.3%)

Residents of these areas mainly consist of family households living as couples, with and without dependent children. A notable characteristic of this group is their financial security, typically with significant financial assets. They not only own houses outright in expensive

Figure 2 Index scores of the 6 Financial Precarity Classification Supergroups.

areas with high sales and rental prices, but often also own a second address as a holiday home, and posses more than two cars. Their houses are typically under-occupied, leading to the highest gas and electricity consumption among all supergroups. This group also shows a clear inclination towards the elite, particularly in employment as managers, directors, and senior officials.

3: Suburban Financial Balancers (19.2%)

This group has the highest employment rate, which even spread across all spectrums of occupations but higher in the administrative and secretarial occupations compared to other Supergroups. Its secured employment status also embodies in especially low rate in part-time job less than 15 hours. It is a rather average group with few noteworthy variables – only couples with dependent children, partial ownership of houses (own with a mortgage or shared ownership) and personal loans.

4: Mature Financial Security (25.4%)

Residents of these areas are characterised by single-family households consisting of people aged 66 and over. They have solid property assets including outright ownership of houses and multiple cars, although do not necessarily live in the most upscale neighbourhoods. They live comfortably as their houses are more likely to be under-occupied. While retirement and state pensions are common, these areas also observe a mild prevalence of skilled trades occupations. Despite not having the highest gross household income, this group has a quite solid financial status - with an extremely low value for the CCJ debts and high levels of saving and investments. As the area has an ageing population, their health is below the national average.

5: Challenged Precarious Families (20.9%)

This working-class group shows a significant share of social rented housing, with a high incidence of poor health and disabilities, resulting in a notable score in Personal Independence Payment (PIP) benefit claimant counts but more moderate Universal Credit claimants. It also has a relatively lower level of education. Poorer health also leads to economic stress, through higher unemployment and the lowest average household income. Employment tends to be in operational and elementary occupations, routine or semi-routine, service and sales jobs. There are also higher instances of lone parents and dependent children in this group.

6: Financially Struggling Families (9.6%)

This is overall the most financially vulnerable Supergroup, with high levels of unemployment, financial vulnerability, rates of problem gambling, outstanding debts and low in income. Given their financial precarity, rates of savings and investments or other property assets like houses and cars are very low. Such issues are exacerbated as there are high instances of dependent children and lone parents, with households often being overcrowded. There are a high proportion of residents below 65 and high rates of unemployment. Those who are working, tend to be in elementary, operational and services occupations. As a result, this group relies heavily on social benefits like Universal Credit and PIP.

4 Discussion and Future Work

Financial precarity is a complex issue, particularly given the current context of the cost of living crisis. In this paper, we developed the Financial Precarity Classification in England and Wales to examine the geographic variation of the socio-spatial inequalities in household financial precarity. A wide spectrum of measures was incorporated to provide unique evidence from separate domains of Employment, Income, Asset, Liability and Lifestyle. The Financial Precarity Classification is a two-tier typology and in future work we will discuss the second tier of the classification. A further agenda is the evaluation of the classification. The internal validation has been conducted with the help of FCA financial behaviour surveys. But external evaluation is also necessary to examine the utility of the classification. The work has the potential to provide spatial insights to policymakers and practitioners associated with the household financial supports and wellbeing. In future, we also plan to consider the temporal changes in the classification to understand the dynamics of neighbourhood financial precarity.

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